

# **MODIS DATA SYSTEM STUDY TEAM PRESENTATION**

**April 28, 1989**

## **AGENDA**

1. MODIS Team Members and Supporting Staff With Interests in Calibration
2. Grid Resolutions of Proposed Products (Not Standardized)
3. Sample NDVI Data from NOAA-9 AVHRR (Courtesy of Dan Tarpley, NOAA/NESDIS)
4. MODIS Team Member Science Data Product Summary

LIST OF MODIS TEAM MEMBERS AND SUPPORTING STAFF  
INTERESTED IN CALIBRATION

1. Dr. Vincent Salomonson/GSFC Code 620

Dr. Salomonson is interested in calibration of all the MODIS-N and -T channels using in-flight sources, Earth calibration targets, the moon, pre-flight data, and any other means. Support staff for this purpose are:

- a. Bruce Guenther/GSFC Code 673
- b. John Barker/GSFC Code 625
- c. Brian Markham/GSFC Code 623
- d. B. Johnson/GSFC Code 674

2. Dr. Philip Slater/U. of Ariz.

Dr. Slater is interested in calibration of all the MODIS-N and T channels using in-flight sources, Earth calibration targets, the moon, pre-flight data, an astronaut transported calibration unit (ATCU), and any other means. Support staff for this purpose are:

- a. J. M. Palmer/U. of Ariz.
- b. R. D. Jackson/U. of Ariz.
- c. M. S. Moran/U. of Ariz.
- d. D. I. Gellman/U. of Ariz.
- e. B. M. Herman/U. of Ariz. field observations
- f. J. A. Reagan/U. of Ariz. field observations
- g. D. Ream/White Sands Missile Range liaison
- h. G. Vane/AVIRIS and Edwards AFB liaison
- i. W. Tibbits/AVIRIS and Edwards AFB liaison
- j. L. Tinney/EG&G aircraft scanners
- k. L. Balick/EG&G aircraft scanners

3. Dr. W. Paul Menzel/U. of Wisc.

Dr. Menzel is interested in the calibration of the 15 thermal channels on MODIS-N. Support for this activity will be provided by Tim Schmit/U. of Wisc.

4. Dr. Otis Brown/U. of Miami

Dr. Brown is interested in the calibration of channels 26, 27, 28, 30, 33, 34, and 35 of MODIS-N.

5. Dr. Robert Evans/U. of Miami

Dr. Evans is interested in calibrating all channels on MODIS-T and the visible channels on MODIS-N using the diffuser plate and the moon as sources.

6. Dr. Yoram Kaufman/Science Systems and Applications, Inc.

Dr. Kaufman is interested in maintaining calibration of the blue-green channels of MODIS-T/N using the sun glint as a calibration target, the visible channels using deserts as calibration targets, and using the ocean as a dark source such as done by Fraser and Kaufman.

7. Dr. John Parslow/CSIRO Div. of Fisheries

Dr. Parslow is interested in the calibration of some of the MODIS-T channels using internal calibration sources and the moon.

GRID RESOLUTIONS OF PROPOSED LEVEL 3 DATA PRODUCTS  
BY MODIS TEAM MEMBERS

MODIS team members proposed many grid resolutions for their Level 3 data products. These resolutions can be divided into equal area grids and latitude-longitude grids. A large group of team members did not specify grid resolutions or stated that the resolution would be determined later. The three groups and their members are:

Group 1 (constant area grids):

1. 0.25 km: Justice, Muller
2. 0.50 km: Barton, Justice, Muller, Running
3. 1 km: Carder, Evans, Hoge, Huete, Justice, King, Menzel, Muller
4. 4 km: Evans, Justice, Susskind
5. 8 km: Justice
6. 10 km: Salomonson, Susskind
7. 15 km: Justice
8. 18 km: Brown, Evans
9. 20 km: Esaias
10. 50 km: Barton, Menzel
11. 100 km: Kaufman
12. 200 km: Strahler

Group 2 (latitude-longitude grids):

13. 0.25 deg.: Barton
14. 0.5 deg.: Barton, Kaufman
15. 1.0 deg.: Tanre
16. 2.5 deg.: King

Group 3 (team members who did not specify a grid or will determine additional grid resolutions later):

17. Abbott
18. Carder
19. Clark
20. Gordon
21. Justice
22. Muller
23. Parslow
24. Running
25. Strahler
26. Vanderbilt
27. Wan

GRID RESOLUTIONS OF PROPOSED LEVEL 3 DATA PRODUCTS  
ORGANIZED BY DISCIPLINE

The team members and their proposed grids are listed by discipline and alphabetically within the discipline below:

OCEANS:

1.	Abbott	TBD
2.	Barton	0.5 and 50 km; 0.25 and 0.5 deg.
3.	Brown	18 km
4.	Carder	1 km
5.	Clark	N/A
6.	Esaias	20 km
7.	Evans/Gordon	1, 4, 18 km
9.	Hoge	1 km
10.	Parslow	TBD
11.	Tanre	1 degree

LAND:

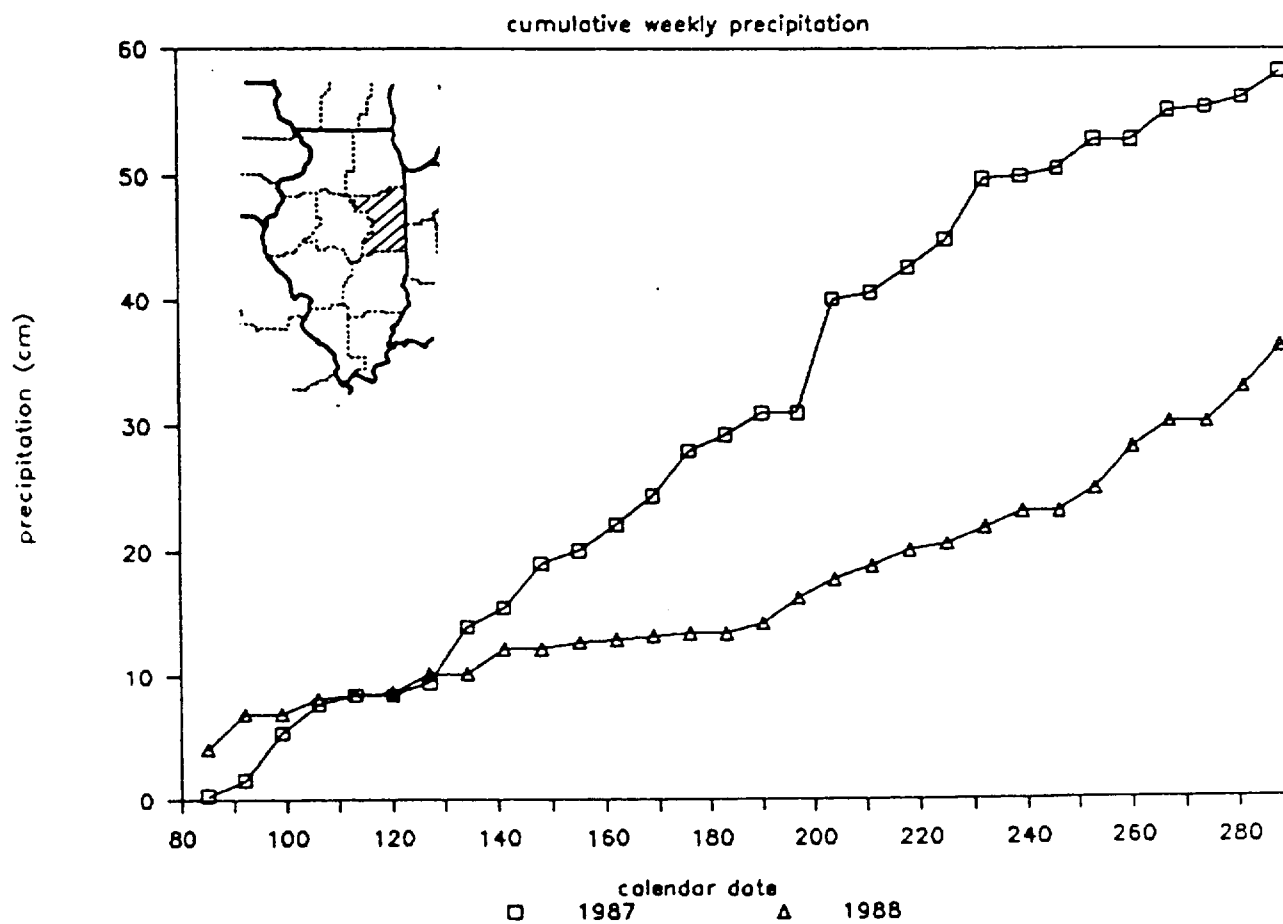
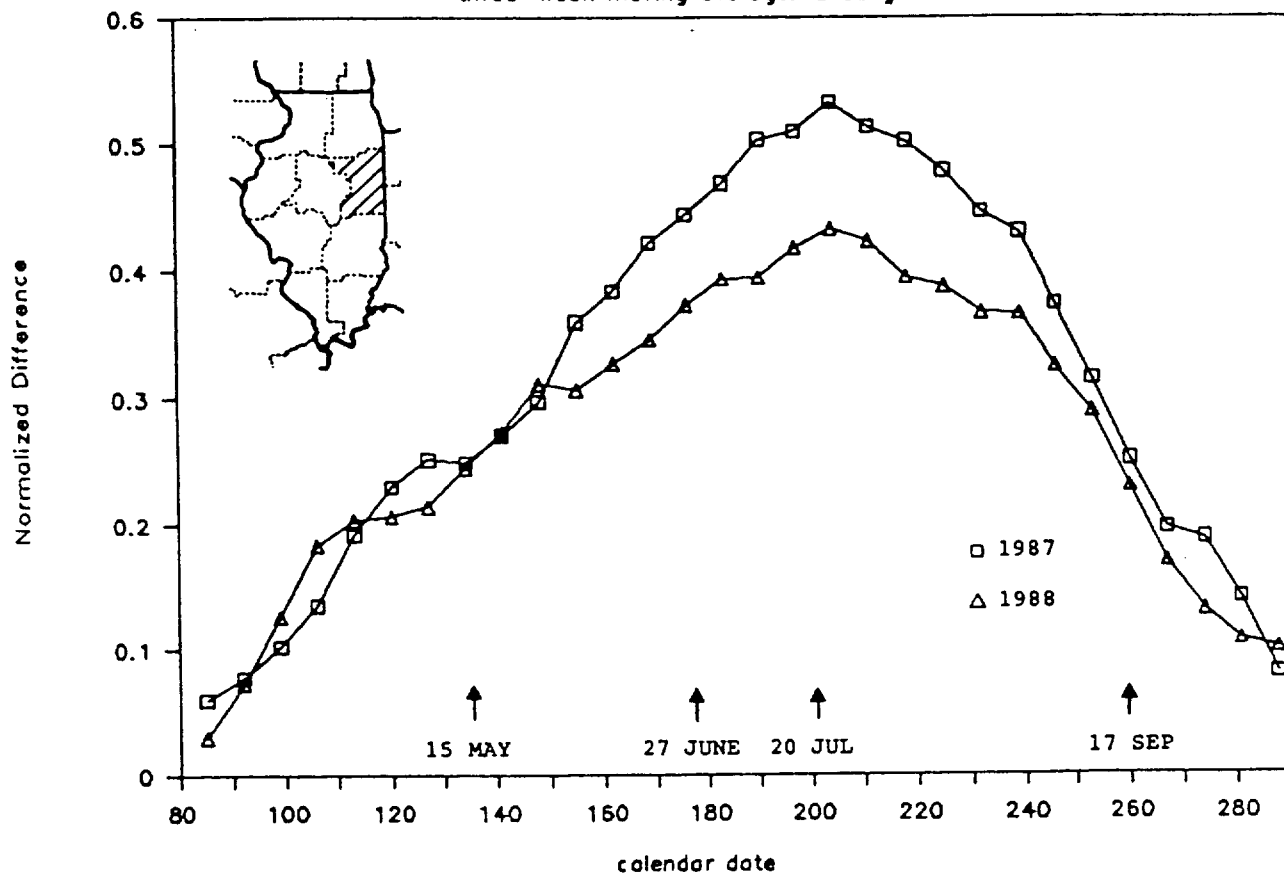
1.	Huete	1 km
2.	Justice	0.25, 0.5, 1, 4, 8, 15 km plus others TBD
3.	Kaufman	0.5 degree
4.	Muller	0.25, 0.5, 1 km plus others TBD
5.	Running	0.5 km; TBD
6.	Salomonson	10 km
7.	Tanre	1 degree
8.	Vanderbilt	TBD
9.	Wan	TBD

ATMOSPHERE:

1.	Kaufman	0.5 degree
2.	King	1 km; 2.5 deg.
3.	Menzel	1, 50 km
4.	Salomonson	10 km
5.	Strahler	200 km, TBD
6.	Susskind	4, 10 km
7.	Tanre	1 degree

# NOAA-9 AVHRR 1987 and 1988

three-week moving average: IL CD #5



# MODIS TEAM MEMBER SCIENCE DATA PRODUCT SUMMARY

(Draft Outline for Comment)

## 1. INTRODUCTION

- 1.1 The Role of MODIS Data Products Within Eos
- 1.2 Synopsis of the Interests of the MODIS Science TEam
- 1.3 References

## 2. CORE DATA PRODUCTS

- 2.1 Core Data Flows
- 2.2 Core Data Products
- 2.3 Core Algorithms
- 2.4 Core Input Data Requirements

## 3. TEAM MEMBER PROPOSED DATA PRODUCTS

- 3.1 Proposed Data Products
- 3.2 Required Data Flows
- 3.3 Input Data Requirements

## 4. ISSUES RELATED TO MODIS DATA PRODUCTS

- 4.1 Compatibility with Requirements of Other Teams
- 4.2 Selection of Product Domains
- 4.3 Selection of Standard Grids
- 4.4 Selection and Implementation of Algorithms
- 4.5 Location and Type of Processing
- 4.6 Availability of Required Input Data
- 4.7 Timeliness Requirements and Product Interrelationships